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## **SUMMARY**

The Secretaries of Agriculture and the Interior propose limited changes to language within the Aquatic Conservation Strategy (ACS). The ACS is an integral part of the Northwest Forest Plan. The ACS is intended to maintain and restore the ecological health of watersheds and aquatic ecosystems within the Northwest Forest Plan area. The ACS includes language that has been interpreted to establish an expectation that is nearly impossible for some projects to meet. These interpretations hinder Federal land managers' ability to plan and implement projects needed to achieve Northwest Forest Plan goals. The Proposed Action would amend the Northwest Forest Plan to clarify that:

- The proper scales for Federal land managers to evaluate progress toward achievement of the ACS objectives are the watershed and broader scales.
- No single project should be expected to achieve all ACS objectives.
- Decision makers must design projects to follow the ACS. Project records must contain evidence that projects comply with relevant standards and guidelines in Sections C and D of Attachment A in the Northwest Forest Plan Record of Decision. Project records must also demonstrate how the decision maker used relevant information from applicable watershed analysis to provide context for the design and assessment of the project.
- References to ACS objectives in the standards and guidelines in Sections C and D do not require that decision makers find that site-scale projects, in themselves, will fully attain ACS objectives.

The Proposed Action would retain all existing components of the Aquatic Conservation Strategy, including Riparian Reserves, Key Watersheds, watershed analysis and watershed restoration. It would reinforce concepts about appropriate scales of analysis and the role of standards and guidelines. It would remove the expectation that all projects must achieve all ACS objectives, and would reinforce the role of watershed analysis in providing context for actions that may affect aquatic or riparian habitat.

Ultimately, the Proposed Action would improve agency success in implementing projects that meet Northwest Forest Plan goals. The Proposed Action would not result in environmental impacts beyond those already disclosed in the Northwest Forest Plan Final Supplemental Environmental Impact Statement.



# CHAPTER 1. PURPOSE OF AND NEED FOR ACTION

## Introduction

The Secretaries of Agriculture and the Interior propose limited changes to language in National Forest Land and Resource Management Plans and Bureau of Land Management Resource Management Plans within the Northwest Forest Plan area (see Figure 1) to clarify the Aquatic Conservation Strategy within these plans.

In 1994, the Secretaries of Agriculture and the Interior signed the Northwest Forest Plan, which amended agency management plans as part of the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl*. The 1994 Record of Decision resulted in 29 amended management plans; however agencies continue to refer to the overall strategy as the Northwest Forest Plan.

The Aquatic Conservation Strategy (ACS) is an integral part of the Northwest Forest Plan. The ACS was developed to maintain and restore the ecological health of watersheds and aquatic ecosystems within public lands. The ACS includes language that has been interpreted to set up an expectation that is nearly impossible for some projects to meet. These interpretations hinder Federal land managers' ability to plan and implement projects needed to achieve Northwest Forest Plan goals. The Secretaries of Agriculture and the Interior proposed to amend the Northwest Forest Plan to clarify how projects should be designed to follow the ACS.

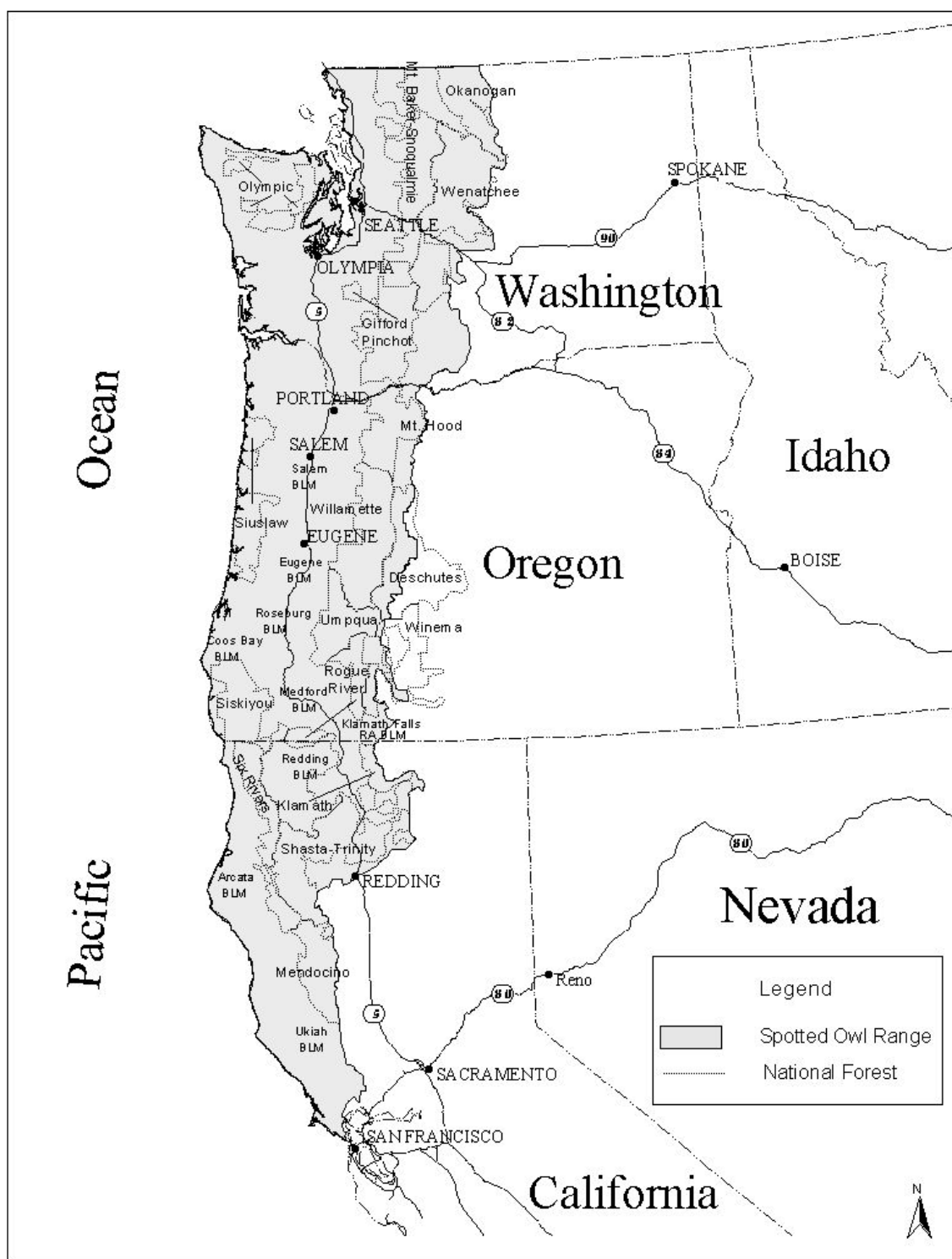
The Forest Service (FS) and Bureau of Land Management (BLM) prepared this Draft Supplemental Environmental Impact Statement (SEIS) in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and state laws and regulations. The FS and BLM are also referred to as "the agencies." An Interagency Interdisciplinary Team (IDT) was chartered to evaluate the potential effects of the proposed amendment (see List of Preparers).

In this document, Land and Resource Management Plans for National Forests and Resource Management Plans for BLM Districts are collectively referred to as "Resource Management Plans." The area affected by the proposed amendments is referred to as the Northwest Forest Plan area.

This SEIS supplements information in the Northwest Forest Plan Record of Decision and Final SEIS. It is not intended to re-evaluate decisions or effects analysis in the Northwest Forest Plan or the information provided by 1993 Forest Ecosystem Management Analysis Team (FEMAT) report.



Figure 1. Northwest Forest Plan Area





## **Purpose and Need**

### ***Need***

The Northwest Forest Plan includes the following principles (on Page 3 of the 1994 Record of Decision):

- "...to protect the long-term health of our forests, our wildlife and our waterways ..."
- "Where sound management policies can preserve the health of forest land, timber sales should go forward."
- "...to produce a predictable and sustainable level of timber sales...that will not degrade or destroy the environment."

The goal of the Aquatic Conservation Strategy is stated in several places, including Page B-9 of the Northwest Forest Plan Record of Decision:

- "to maintain and restore the ecological health of watersheds and the aquatic ecosystems within them."

Projects needed to achieve Northwest Forest Plan goals have been delayed or stopped due to misapplication of certain passages in the Aquatic Conservation Strategy. The ACS has been interpreted to mean that every project must achieve all ACS objectives at all spatial and temporal scales. This interpretation suggests land managers must demonstrate that a project will maintain existing conditions (or lead to improved conditions) at every spatial and temporal scale. Any project that may result in site-level disturbance to aquatic or riparian habitat, no matter how localized or short-term, could be precluded under this interpretation. This interpretation establishes a nearly impossible expectation for demonstrating that projects follow the ACS.

With this SEIS, the agencies are responding to the need for achievement of Northwest Forest Plan goals, to the extent that current wording of the ACS hinders the agencies' ability to do so.

Types of projects most likely to be stopped or delayed because of misapplication of the ACS include:

- **Watershed restoration**: transportation system treatments, culvert removal and replacement, restoration silviculture in Riparian Reserves, stream enhancement projects



- **Vegetation management:** timber management, harvest and sales, timber stand improvement projects, fuels reduction projects<sup>1</sup>

These projects may be stopped or delayed because they may result in short term, site-scale effects to aquatic or riparian habitats. Even projects designed to restore aquatic and riparian habitat in the long-term can result in short-term adverse effects.

The current wording of the ACS has influenced litigation regarding the Endangered Species Act. The U.S. District Court in the Western District of Washington interpreted the Northwest Forest Plan as requiring that, “not only must the ACS objectives be met at the watershed scale...each project must also be consistent with ACS objectives, i.e. it must maintain the existing condition or move it within the range of natural variability.” Pacific Coast Federation of Fishermen’s Association v. National Marine Fisheries Service, 71 F. Supp.2d 1063, 1069 (W.D. Wash. 1999).<sup>2</sup>

The U.S. District Court ruled (in this case and a subsequent case) that the Northwest Forest Plan programmatic biological opinion met the standards of the Endangered Species Act, but that 24 project-level biological opinions did not adequately demonstrate that projects follow the ACS. The U.S. District Court ruled that NMFS had an independent obligation to ensure ACS consistency because it was used as a surrogate for jeopardy analysis<sup>3</sup>. The U.S. District Court said that NMFS:

- failed to demonstrate that projects included in biological opinions were consistent with ACS objectives at all scales
- inadequately addressed site-specific and aggregated effects of timber sales
- inadequately addressed short-term adverse effects from timber sales
- ignored the best available scientific information due to a failure to demonstrate the use of watershed analysis and its recommendations
- failed to show that actions proposed within Riparian Reserves would result in benefits to aquatic habitats and ecosystems as required by the Northwest Forest Plan.

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<sup>1</sup> There is considerable overlap between these types of projects, i.e. timber sales that also reduce fuels and improve timber stands and transportation system treatments that include culvert replacement. The agencies chose to focus on vegetation management and watershed restoration because these are most specific to Northwest Forest Plan principles described in the Purpose and Need.

<sup>2</sup> This case will hereby be referred to as PCFFA v. NMFS. This part of the ruling was affirmed in 253 F. 3d 1137 (9th Cir. 2001). See Appendix A for full text of the ruling. NMFS is now known as National Oceanic and Atmospheric Administration (NOAA) Fisheries.

<sup>3</sup> Jeopardy analysis refers to a determination that programs or projects will not jeopardize the continued existence of a species listed as threatened or endangered, or proposed for listing under the Endangered Species Act. Jeopardy analysis was at issue in PCFFA v. NMFS.



The U.S. District Court in PCFFA v. NMFS allowed some watershed restoration projects to proceed, even though they were covered by a biological opinion invalidated by the court. Timber sales under the same biological opinions were not allowed to proceed, even though in many cases, the action that caused the adverse effect were restoration components attached to timber sale activities (such as a culvert replacement on a timber sale haul route). This led to further agency confusion about application of the ACS at the site scale.

NMFS (NOAA Fisheries) has not issued any biological opinions covering timber sales in the Northwest Forest Plan area since 1999. At least 100 million board feet of timber across the Northwest Forest Plan area cannot be sold because biological opinions covering the projects are currently enjoined as a result of the PCFFA v. NMFS lawsuits.<sup>4</sup>

Northwest Forest Plan goals addressed by the sales include: maintaining forest health, producing a sustainable supply of wood products, and restoring watershed health. The timber sales covered by the invalidated biological opinions minimized construction of roads and included associated projects such as decommissioning roads, and upgrading culverts. Trees were to be directionally felled away from the Riparian Reserves. Ground-based yarding and prescribed burning were to be timed to avoid harmful impacts.

As a result of the design features and mitigation measures, the sales were characterized as having minimal impact on anadromous fish habitat. The most common impact noted was a transitory increase in stream sedimentation and/or short-term, localized sedimentation from road-related activities, especially activities that would have been restorative in the long term that directly affect streams and riparian areas in the short-term, such as culvert replacement, road decommissioning, skid trail obliteration and road maintenance. The current wording of the ACS has been interpreted to preclude timber sales such as these that may result in minimal impact to aquatic and riparian habitat.

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<sup>4</sup> Specific sales are currently the subject of PCFFA v. NMFS settlement negotiations; no final agreement as to the sales has been reached.



While the court decisions regarding the ACS have been confined to projects in areas with listed fish species, several new lawsuits have recently been filed against projects outside of areas with listed fish<sup>5</sup>. These complaints allege that proposed projects do not follow the ACS because they do not maintain the existing riparian and aquatic condition at every scale, and thus violate requirements that projects comply with Resource Management Plans under the Federal Land and Policy Management Act (FLPMA) and the National Forest Management Act (NFMA). Initial rulings on these complaints are anticipated later in 2003.

Sources of ambiguity within the ACS include passages within the Northwest Forest Plan Record of Decision, Attachment A, Appendix B, Pages B-9 and B-10. These passages need to be amended to clarify that:

- The proper scales for Federal land managers to evaluate progress toward achievement of the ACS objectives are the watershed and broader scales.
- No single project should be expected to achieve all ACS objectives.
- Decision makers must design projects to follow the ACS. Project records must contain evidence that projects comply with relevant standards and guidelines in Sections C and D of Attachment A in the Northwest Forest Plan Record of Decision. Project records must also demonstrate how the decision maker used relevant information from applicable watershed analysis to provide context for the design and assessment of the project.
- References to ACS objectives in the standards and guidelines in Sections C and D do not require that decision makers find that site-scale projects, in themselves, will fully attain ACS objectives.

The Northwest Forest Plan contains additional paragraphs in Attachment A that imply the term “standards and guidelines” includes all elements of Attachment A. The Northwest Forest Plan includes multiple references to standards and guidelines and their role in relationship to the ACS. The Northwest Forest Plan Final SEIS, Page B-83 states:

“Implementing the ACS requires applying the standards and guidelines...within the context of the...ACS objectives.”

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<sup>5</sup> BARK, et al. v. Gary Larsen et al. U.S D.C. District Court of Oregon, Civil No. 02-904-HU, filed July 2002; Headwaters and ONRC Fund v. United States Forest Service ; U.S D.C. District Court of Oregon, Civil No. 02-1519-JO, filed November 2002; and Klamath-Siskiyou Wildlands Center v. BLM U.S.D.C. District Court of Oregon, Civil No. 03-3006-CO, filed January 2003.



The Final SEIS also states, on Page F-166:

“The Aquatic Conservation Strategy objectives do not meet the definition of standards and guidelines...”

An amendment is needed to clarify the proper role of standards and guidelines in Sections C and D of Attachment A in the Northwest Forest Plan Record of Decision.

### ***Purpose***

The purpose of the Proposed Action is to improve agency success in planning and implementing projects that follow Northwest Forest Plan principles, including a predictable and sustainable timber supply. Northwest Forest Plan goals cannot be achieved without project implementation.

## **The Decision**

The Secretaries of Agriculture and the Interior are the decision-makers for this SEIS. They will decide whether or not to amend the ACS portions of Resource Management Plans within the Northwest Forest Plan area. Their decision will be based on which alternative is most conducive to agency success in implementing projects that follow the principles of the Northwest Forest Plan and contribute to achieving its goals.

Documenting this analysis in an EIS is not intended to imply that there are significant effects as a result of this amendment. An EIS was chosen as the vehicle to consider the language change so that all interested or affected people are provided opportunity to review and comment on the Proposed Action.

## **Public Involvement**

Comments were solicited from the public, government agencies, and agency staffs through the following:

- Notice of Intent (NOI) published in the Federal Register on November 25, 2002.
- Scoping letters sent to 2,800 concerned parties, including Indian tribes, through the Northwest Forest Plan mailing list between December 17, 2002 and January 14, 2003.
- On January 15, 2003 the scoping period was extended to February 3, 2003 to ensure that all interested parties were provided adequate time to comment.



More than 400 letters, faxes, and e-mails (collectively referred to as scoping comments) were received from a wide variety of parties including environmental organizations, industry associations, local governments, individuals, and two Inter-tribal fish commissions. Scoping comments covered a wide array of interests. Further discussion about scoping and issues is in Appendix C. All scoping comments were reviewed by the IDT.

Several common themes were identified in the comments. Several commenters suggested the ACS is not “broken” and does not need to be fixed. They expressed concern that proposed changes to the ACS could modify the intent of the watershed analysis as it relates to the planning process. Some commenters thought the replacement language was confusing and should be changed. Several commenters were concerned that there was inadequate information to support the Purpose and Need statement.

The Proposed Action was modified to respond to these comments. The role of watershed analysis was emphasized. The replacement language was clarified and expanded to cover ambiguities identified in the comments. The Purpose and Need was reinforced with additional information. Appendix A provides further background to support the Purpose and Need.

Many groups and individuals expressed concern that the proposed amendment would undermine the ACS and result in environmental degradation. The agencies considered the physical, biological and socio-economic effects of the Proposed Action and No Action. Effects are discussed in Chapter 3&4. The scope of the effects analysis is narrow and must be reviewed in the context of the Northwest Forest Plan. The Proposed Action does not seek to change the intent of the ACS or Northwest Forest Plan, or its expected outcomes. The agencies will continue to comply with all applicable federal laws.

Some of the letters supported the proposed amendment, pointing out that the expectations associated with timber production have not been met in the eight years since the Northwest Forest Plan was adopted. They wanted to make sure the effects analysis considered that the actual amount of ground disturbance has been far less than predicted for the Northwest Forest Plan. The effects analysis in Chapter 3&4 considers the rate of logging on Federal lands within the Northwest Forest Plan area since 1994.



Some people suggested that new information, such as disturbance events (droughts, floods, fires) that have occurred since 1994, new listings under the Endangered Species Act and Clean Water Act, and monitoring information be considered in the analysis. These elements are discussed in Chapter 3&4 and in the Appendices.

Some commenters suggested that references to ACS objectives should be removed from the standards and guidelines to acknowledge that projects should not be expected to achieve all ACS objectives at all scales. Language was added to the Proposed Action to clarify that references to ACS objectives in the standards and guidelines are not intended to imply that decision makers are required to demonstrate that all projects achieve all ACS objectives at all scales.

Several alternatives to the Proposed Action were suggested in the comments. These alternatives were considered but eliminated from detailed study. They are discussed in Chapter 2.



## **CHAPTER 2. ALTERNATIVES, INCLUDING THE PROPOSED ACTION**

### **Introduction**

This chapter describes and compares the alternatives considered in detail. It also discloses additional alternatives considered but eliminated from detailed study, and provides rationale for their dismissal.

### **Alternatives Considered in Detail**

#### *No Action*

Under the No Action alternative, the current wording of the ACS would not be modified. Land managers would continue to plan projects to meet the goals of the Northwest Forest Plan but would encounter difficulty demonstrating that projects that may result in short-term disturbance to aquatic or riparian habitat “maintain the existing condition”. Under the No Action alternative, agencies would be subject to continued interpretations that they may only plan projects that achieve all ACS objectives at all spatial and temporal scales.

#### *Proposed Action*

The Secretaries of Agriculture and the Interior propose to amend the ACS portions of the Resource Management Plans within the Northwest Forest Plan area. Under the amendment, land managers would continue to be required to design projects to comply with applicable standards and guidelines in Sections C and D of Attachment A in the Record of Decision. The amendment would require land managers to document how applicable watershed analysis was used to provide context for the design and site-specific assessment of a project. No additional site-scale determinations regarding attainment of ACS objectives would be required.

The Proposed Action does not change the goals of the 1994 Northwest Forest Plan Record of Decision. All components of the ACS (Riparian Reserves, Key Watersheds, watershed analysis and watershed restoration) remain in place.



The Proposed Action emphasizes a concept from FEMAT Chapter V and the Northwest Forest Plan Record of Decision, Page B-12:

“Standards and guidelines prohibit and regulate activities in Riparian Reserves that retard or prevent attainment of Aquatic Conservation Strategy objectives.”

The Proposed Action also clarifies that information in watershed analysis will be used in planning and decision making, but is not a decision-making process in and of itself. This principle is emphasized in the Northwest Forest Plan Record of Decision, the Final SEIS, and the 1995 *Federal Guide for Watershed Analysis*.

No Action and Proposed Action language are displayed in Figure 2. The Proposed Action language is different than language presented in the Notice of Intent to Prepare an EIS. It was revised to respond to some of the comments received during scoping (see Appendix C for further information about scoping responses). The revised language better addresses specific ambiguities within the current wording.

All of the proposed amendments are to language in Attachment A of the 1994 Northwest Forest Plan. As an amendment to the Resource Management Plans in the Northwest Forest Plan area, the Proposed Action would not approve any individual projects. Individual projects are subject to site-specific analysis required by NEPA and other laws, policy and regulations.



**Figure 2. Comparison of No Action and Proposed Action Wording**

<b>NWFP ROD Excerpt</b>	<b>No Action (Existing)</b>	<b>Proposed Action</b>
<b>Page A-6, Paragraph 3</b>	Designated areas, matrix and Key Watersheds all have specific management direction regarding how these lands are to be managed, including actions that are prohibited and descriptions of the conditions that should occur there. This management direction is known as “standards and guidelines” – the rules and limits governing actions, and the principles specifying the environmental conditions or levels to be achieved and maintained. Although the direction in all sections of this document constitutes standards and guidelines, standards and guidelines specific to particular land allocation categories, or relative to specific types of management activities, are included in Section C of these standards and guidelines.	Deleted



<b>NWFP ROD Excerpt</b>	<b>No Action (Existing)</b>	<b>Proposed Action</b>
<b>Page B-9, Paragraph 5</b>	<p>Any species –specific strategy aimed at defining explicit standards for habitat elements must strive to maintain and restore ecosystem health at watershed and landscape scales to protect habitat for fish and other riparian-dependent species and resources and restore currently degraded habitats. This approach seeks to prevent further degradation and restore habitat over broad landscapes as opposed to individual projects or small watersheds. Because it is based on natural disturbance processes, it may take decades, possibly more than a century, to accomplish all of its objectives. Some improvements in aquatic ecosystems, however, can be expected in 10 to 20 years.</p>	<p>Any species –specific strategy aimed at defining explicit standards for habitat elements must strive to maintain and restore ecosystem health at watershed and landscape scales to protect habitat for fish and other riparian-dependent species and resources and restore currently degraded habitats. This approach seeks to prevent further degradation and restore habitat over broad landscapes as opposed to individual projects or small watersheds. Because it is based on natural disturbance processes, it may take decades, possibly more than a century, to accomplish all of its objectives. Some improvements in aquatic ecosystems, however, can be expected in 10 to 20 years. The baseline from which to assess maintaining or restoring the condition is developed through a watershed analysis. Improvement means restoring biological and physical processes within their ranges of natural variability.</p>



<b>NWFP ROD Excerpt</b>	<b>No Action (Existing)</b>	<b>Proposed Action</b>
<b>Page B-9 Paragraph 6 to Page B-10 Paragraph 1</b>	<p>The important phrases in these standards and guidelines are “meet Aquatic Conservation Strategy objectives, “does not retard or prevent attainment of Aquatic Conservation Strategy objectives, and “attain Aquatic Conservation Strategy objectives.” These phrases, couple with the phrase “maintain and restore” within each of the Aquatic Conservation Strategy objectives define the context for agency review and implementation of management activities.</p> <p>Complying with the Aquatic Conservation Strategy objectives means that an agency must manage the riparian-dependent resources to maintain the existing condition or implement actions to restore conditions. The baseline from which to assess maintaining and restoring the condition is developed through a watershed analysis.</p> <p>Improvement relates to restoring biological and physical processes within their range of natural variability.</p>	Deleted



<b>NWFP ROD Excerpt</b>	<b>No Action (Existing)</b>	<b>Proposed Action</b>
<b>Page B-10, Paragraph 2</b>	<p>The standards and guidelines are designed to focus the review of proposed and certain existing projects to determine compatibility with the Aquatic Conservation Strategy objectives. The standards and guidelines focus on “meeting” and “not preventing attainment” of Aquatic Conservation Strategy objectives. The intent is to ensure that a decision maker must find that the proposed management activity is consistent with the Aquatic Conservation Strategy objectives. The decision maker will use the results of watershed analysis to support the finding. In order to make the finding that a project or management action “meets” or “does not prevent attainment of” the Aquatic Conservation Strategy objectives, the analysis must include a description of the existing condition, a description of the range of natural variability of the important physical and biological components of a given watershed, and how the proposed project or management action maintains the existing condition or moves it within the range of natural variability. Management actions that do not maintain the existing condition or lead to improved conditions in the long term would not “meet” the intent of the Aquatic Conservation Strategy and thus, should not be implemented.</p>	<p>The four components of the Aquatic Conservation Strategy (Riparian Reserves, Key Watersheds, watershed analysis, and watershed restoration), in combination with application of pertinent standards and guidelines, are expected to maintain and restore ecosystem health at watershed and broader scales.</p> <p>By itself, no site-scale project can, or should be expected to fully achieve ACS objectives. These objectives are intended to be met over time at watershed and broader scales. Monitoring results will help managers evaluate progress toward achievement of ACS objectives.</p> <p>To follow the ACS at the site-scale, decision makers must demonstrate that projects comply with standards and guidelines in Sections C and D.</p> <p>The project record will demonstrate how the agency used relevant information from applicable watershed analysis to provide context for the design and site-specific assessment of the project, recognizing that watershed analysis is not a decision-making process in and of itself.</p> <p>References to ACS objectives in the standards and guidelines in Sections C and D do not require that decision makers find that site-scale projects, in themselves, will fully attain ACS objectives.</p>



<b>NWFP ROD Excerpt</b>	<b>No Action (Existing)</b>	<b>Proposed Action</b>
<b>Page C-1, Paragraph 1</b>	Although the direction in all sections of this document constitutes standards and guidelines, standards and guidelines specific to particular land allocation categories, or relative to specific types of management activities, are included (or referenced) in this section, Section C, of these standards and guidelines.	Deleted
<b>Page C-2, insert after Existing Paragraph 2</b>	No text	Some standards and guidelines refer to attaining, being consistent with, meeting, or achieving ACS objectives. The intent of these references is that projects will use relevant information from applicable watershed analysis to provide context for project planning. These references do not mean that decision makers must find that a site-scale project, by itself, will fully attain ACS objectives.

### ***Resource Management Plans Amended By the Proposed Action***

All Resource Management Plans for Forest Service and BLM administrative units within the Northwest Forest Plan area would be amended under the Proposed Action. Management of the Coquille Forest would also be affected.

The Proposed Action would not result in a significant change to any Resource Management Plan, nor would it alter their objectives or multiple-use goals. The Proposed Action would not adjust management area boundaries.

### **Bureau of Land Management**



Adoption of the Proposed Action would be consistent with 43 CFR 1610.5-5. The Proposed Action would amend the Resource Management Plans for the Salem, Eugene, Roseburg, Medford, and Coos Bay districts in Oregon; the Klamath Falls Resource Area of the Lakeview District, also in Oregon; and the Arcata, Redding, and Ukiah field offices in California. The King Range National Conservation Area Management Plan in the Arcata Field Office would also be amended.

## **Forest Service**

Adoption of the Proposed Action would amend of the National Forest Land and Resource Management Plans for the Gifford Pinchot, Olympic, Mt. Baker-Snoqualmie, Okanogan, and Wenatchee National Forests in Washington and the Mt. Hood, Willamette, Umpqua, Siuslaw, Siskiyou, Rogue River, Deschutes, and Winema National Forests in Oregon, all in the Pacific Northwest Region, and the Six Rivers, Klamath, Lassen, Mendocino, Modoc, and Shasta-Trinity National Forests in the Pacific Southwest Region.

## **Coquille Forest**

The Proposed Action would affect management of the Coquille Forest. These lands are owned by the Coquille Indian Tribe, are part of the Coquille Indian Reservation, and are held in trust by the United States. An Act of Congress in 1996 transferred ownership of about 5,400 acres of federal land within the Northwest Forest plan to the Coquille Indian Tribe. The Act required that Coquille Forest comply with the adjacent Coos Bay BLM District Resource Management Plans. The Coquille Forest would be affected by this proposed amendment to the Coos Bay BLM Resource Management Plan.

## **Assumptions Common to Both Alternatives**

Conclusions regarding the environmental consequences of the alternatives are based on specific species information, information about the landscape, and assumptions regarding management actions. Information and assumptions common to both alternatives are:

- Both alternatives retain all land allocation decisions from the Northwest Forest Plan.
- All components of the Aquatic Conservation Strategy would be maintained, including Riparian Reserve standards and guidelines, watershed analysis, watershed restoration, and Key Watersheds. ACS objectives remain unchanged.



- NOAA Fisheries and the U.S. Fish and Wildlife Service (USFWS) are developing new approaches to consultation that do not rely on the ACS as a surrogate for Endangered Species Act jeopardy analysis. The new approaches would be applied to programmatic consultation under both alternatives.

## **Alternatives Considered but Eliminated from Detailed Study**

Federal agencies are required by NEPA to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). The range of alternatives considered in detail is limited by the requirement to fulfill the Purpose and Need for Action.

All of the alternatives considered by the interdisciplinary team, except No Action and the Proposed Action, were eliminated from detailed study. The Need for Action substantially limits the range of reasonable alternatives available for analysis and provides a relatively narrow scope for this action. Several commenters recommended different wording to meet the same needs as the Proposed Action. An infinite number of wording combinations are possible; the current version of the Proposed Action was precisely drafted. Additional alternatives would not help the Secretaries of Agriculture and the Interior evaluate whether or not to amend to ACS to meet the Purpose and Need. The Record of Decision can provide additional clarifications if needed.

### ***No Cutting or Removal of Trees Older Than 80 Years***

The Oregon Natural Resources Council and several other groups and individuals suggested an alternative that would not allow cutting or removal of all trees aged 80 years or older. With a few exceptions, all land allocations and standards and guidelines of the Northwest Forest Plan would remain in effect. Fuel reduction activities in fire-dependent forests may be allowed when the primary objective is ecological restoration. Pre-disturbance surveys would not be required for restoration projects in stands less than 80 years old. Pre-disturbance surveys would still be required for fuel reduction projects that substantially modify stands more than 80 years old. Pre-disturbance surveys would be conducted for Survey and Manage and Protection Buffer species listed in the 1994 Northwest Forest Plan Record of Decision. Strategic surveys would continue. This alternative would not make any changes in the Aquatic Conservation Strategy.

This alternative was eliminated from detailed study because it does not respond to the Need for Action. It does not suggest an alternative way to clarify language in the ACS, nor does it respond to the underlying need to follow Northwest Forest Plan principles. This alternative would be similar to Alternative 1 in the Northwest Forest Plan Final



SEIS, which was not selected for implementation. This SEIS is not intended, nor required, to re-examine the overall strategy of the Northwest Forest Plan.

### ***Analyze Additional Proposals Under A Single EIS***

Some commenters suggested that the agencies analyze concurrent proposals in a single EIS. The comments specifically mentioned that the Survey and Manage Supplemental EIS should be combined with the ACS Supplemental EIS. The agencies are considering alternatives to modify or eliminate the Survey and Manage mitigation measure in the Northwest Forest Plan to settle litigation filed by the timber industry and county government associations.

Other alleged connected analyses were also named, including the Forest Service "Invasive Plant EIS," the BLM and FS "Port-Orford-cedar EIS" and the BLM "Vegetation Treatments Programmatic EIS." The Port-Orford-cedar EIS was necessitated by the Kern v. BLM decision of the Ninth Circuit, and the BLM Vegetation Management EIS is intended to address problems created by court injunctions from the 1980's that still restrict BLM herbicide use.

Some commenters said that proposed changes to the Forest Service planning rule (36 CFR 219), proposed changes to the Forest Service appeal rule (36 CFR 215), and proposed changes to BLM and FS categorical exclusion regulations as actions that should be considered within this SEIS.

The agencies considered all of these suggestions and determined that the various agency proposals are not connected or similar actions and therefore need not be combined in a single SEIS (CEQ 1508.25). Attempting to analyze all of these activities in a single EIS is impractical because they cover a wide range of geographic areas. The alternatives in the ACS SEIS are not affected by any of the other proposals, nor are any of the other proposals dependent on the alternatives in the ACS SEIS.

### ***Exempt Ski Resorts from Aquatic Conservation Strategy Standards and Guidelines***

The agencies also considered an alternative to exempt ski resorts from the Aquatic Conservation Strategy standards and guidelines. ACS standards and guidelines may restrict ski run development, thereby reducing the potential for additional recreational opportunities. The commenter suggested that an array of Best Management Practices already in use by the ski industry would meet the same needs as the ACS standards and guidelines.



This alternative to exempt ski industry operations from the Aquatic Conservation Strategy standards and guidelines was eliminated from detailed study because it does not respond to the Need for Action. This alternative would not clarify language in the ACS that hampers the agencies' ability to meet Northwest Forest Plan objectives. The scope of this SEIS is strictly limited to clarify ACS intent; this alternative would deviate from the intent to apply the ACS to all activities on federal lands within the Northwest Forest Plan area.

### ***Additional Mitigation Measures***

Several commenters suggested that the agencies consider an alternative to expand Riparian Reserves and strictly prohibit activities that affect aquatic or riparian ecosystems. This alternative would also include additional measures intended to benefit fish.

The agencies previously considered additional mitigation measures that could benefit fish and chose not to adopt them (Northwest Forest Plan Record of Decision, Page 29). These measures included removing lands from programmed timber harvest in Tier 1 Key Watersheds, no new road building in Tier 1 Key Watersheds, and no programmed timber harvest in inventoried roadless areas.

This alternative was eliminated from detailed study because it would include a re-analysis of mitigation measures that were not adopted in 1994. Such an analysis is beyond the scope of this SEIS.

### ***Streamline Procedures for Planning Restoration Activities***

This alternative would streamline procedures for planning and implementing restoration activities, while leaving the existing language intact for logging, mining, and other extractive activities. Short-term disturbance to aquatic or riparian habitat would be allowed for watershed restoration projects. Short-term disturbance to aquatic or riparian habitat would not be allowed for logging or non-restoration projects.

This alternative was eliminated from detailed study because it would not meet the need to clarify the ACS. Applying different approaches to the ACS to different types of projects has no valid rationale and would not resolve ambiguities within the current language. It would lead to further confusion over which standards apply in the case of connected actions (such as culvert upgrades associated with a timber sale haul route).



### ***Change Watershed Analysis to Watershed Plans***

This alternative would modify the ACS by changing the role of watershed analysis. Watershed analysis would become a decision-making process and would contain prescriptive steps and priorities for restoring watersheds. Watershed plans would be similar to Resource Management Plans, except they would be applicable to a smaller geographic area. Projects would be required to be designed consistent with these watershed plans.

This alternative was eliminated from detailed study because it does not respond to the Need for Action. It would not address the confusion that has arisen from the misapplication of the ACS objectives. Watershed analysis is, and will continue to be, one of the four components of the ACS.

### ***Required Procedures for Cumulative Watershed Impact Analysis***

This alternative would add language to the ACS with specific requirements to use an equivalent roaded area (ERA) calculation for conducting cumulative watershed impact analysis. ERA analysis would be limited to watersheds of 5,000 - 15,000 acres. Projects with a low potential to affect water quality would be exempt from using the ERA calculation.

This alternative was eliminated from detailed study because it does not address the Need to clarify language in the ACS. It would create an additional standard, which is not within the scope of this analysis.

Creating standards and guidelines specifying use of a single model could unnecessarily constrain interdisciplinary teams or require analysis that is not useful or relevant. NEPA requires that environmental analyses use the best available information. Specifying a particular model in the standards and guidelines would force analysts to use the model even if better methods are available or lead to endless amendments as models are updated and refined. Also, agency direction on how and when to complete cumulative effects analysis is already available.



### ***Add a 10-year Time Frame for Achieving ACS objectives***

Some groups suggested that a 10-year time frame for achievement of ACS objectives should be added to standards and guidelines that refer to ACS objectives. This alternative was considered, but eliminated from detailed study because it would conflict with language on Page B-9 of the Northwest Forest Plan Record of Decision that states:

“...it may take decades, possibly more than a century, to accomplish all of [the ACS] objectives. Some improvements in aquatic ecosystems, however, can be expected in 10 to 20 years.”

Requiring projects to achieve ACS objectives in a 10-year time frame could establish an unreasonable standard.

### ***Proposed Action Language Circulated for Scoping***

The original language described in the NOI and circulated for scoping was eliminated from detailed study because new language better responds to the Purpose and Need, based on internal and public comment. The original Proposed Action was intended to meet the same needs, but was found to lack some important elements included in the revised Proposed Action. The text of the Proposed Action circulated for scoping is in Appendix C.



## Alternatives Compared

This section provides a comparison of the two alternatives in terms of decision factors, issues and environmental consequences.

**Figure 3. Alternative Comparison Table**

	<b>No Action</b>	<b>Proposed Action</b>
Ambiguous Language in Attachment A of the Northwest Forest Plan Record of Decision.	<b>Does not amend language in Attachment A of the Northwest Forest Plan.</b>	<b>Amends language in Attachment A of the Northwest Forest Plan.</b>
Standards and Guidelines	<b>Does not clarify the role of standards and guidelines in following the ACS.</b>	<b>Clarifies role of Section C and D standards and guidelines in following the ACS.</b>
Program of Work – Watershed Restoration	<b>Some projects delayed or stopped due to ACS interpretations.</b>	<b>Fewer projects delayed or stopped.</b>
Program of Work – Vegetation Management	<b>Some projects delayed or stopped due to ACS interpretations.</b>	<b>Fewer projects delayed or stopped.</b>
Rate of Watershed Recovery	<b>Slower than rate anticipated in the Northwest Forest Plan.</b>	<b>Closer to rate anticipated in Northwest Forest Plan.</b>
Timber Sale Volume Offered	<b>Timber sale levels less than anticipated in Northwest Forest Plan.</b>	<b>Timber sales closer to levels anticipated in Northwest Forest Plan.</b>
Environmental Consequences	<b>Less similar to Alternative 9 in the Northwest Forest Plan.</b>	<b>More similar to Alternative 9 in the Northwest Forest Plan.</b>



## **CHAPTER 3&4. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

### **Introduction**

This Supplemental EIS tiers to the Northwest Forest Plan SEIS and incorporates, through reference, the Forest Ecosystem Management: An Ecological, Economic, and Social Assessment; Report of the Forest Ecosystem Management Assessment Team (FEMAT 1993). Chapter 3&4 supplements analysis contained in the Northwest Forest Plan Final SEIS.

Chapter 3&4 presents the analytical basis for the comparison of alternatives presented in Chapter 2. “Chapter 3&4” is so titled because it combines the Affected Environment and Environmental Consequences sections required by the National Environmental Policy Act. These chapters were combined in the FSEIS for the Northwest Forest Plan.

Chapter 3&4 discusses the affected environment and environmental consequences predicted for each alternative. Chapter 3&4 also describes the Aquatic Conservation Strategy, addresses environmental conditions that may have changed since 1994, discusses new listings under the Endangered Species Act and Clean Water Act, and reviews monitoring and adaptive management plans.

### **The Aquatic Conservation Strategy**

The Aquatic Conservation Strategy was developed to restore and maintain ecological health of watersheds (and the aquatic ecosystems contained within them) on Federally-managed lands within the Northwest Forest Plan area. The four major components of the Aquatic Conservation Strategy (Riparian Reserves, Key Watersheds, watershed analysis, and watershed restoration) provide the basis for protection of watershed health. As stated within the Northwest Forest Plan Record of Decision:

“The Aquatic Conservation Strategy must strive to maintain and restore ecosystem health at watershed and landscape scales...This approach seeks to prevent further degradation and restore habitat over broad landscapes as opposed to individual projects or small watersheds.”



One of the authors of the ACS from the FEMAT team described the intent of the ACS as follows:<sup>6</sup>

“The ACS objectives provide a framework for managing aquatic ecosystems at the watershed and landscape (i.e. multiple watershed) scale. They describe the attributes and distribution of aquatic ecosystems believed necessary to provide conditions for maintaining currently strong populations of fish and other aquatic and riparian-dependent organisms and to recover currently degraded ecosystems. They are not intended to be a hard set of criteria that could or can be applied equally at all spatial scales of concern (i.e. site, watershed, province and region).”

In November 1999, the Regional Ecosystem Office (REO) published a memorandum addressing “Northwest Forest Plan Record of Decision requirements for determining project consistency with ACS objectives.” The REO clarified that, “the watershed scale is the appropriate landscape context for determining whether actions are consistent with the ACS objectives.”

In December 2002, the United States Department of the Interior Office of Hearings and Appeals, Interior Board of Land Appeals (IBLA) upheld the BLM’s interpretation of the ACS. The IBLA decision states:

“The Northwest Forest Plan does not require every action conducted in a watershed to result in improvement to the watershed,” and that “it may take decades, possibly more than a century” to achieve ACS objectives.

The IBLA concludes that timber sales that would not degrade a watershed are not precluded (even though they may have short-term, site-scale effects). The full text of the IBLA decision and REO memorandum are included in Appendix A.

The Northwest Forest Plan contains language that support the desired interpretation of the ACS, including:

**P. V-30, FEMAT; FSEIS B-82.** “...To succeed, any Aquatic Conservation Strategy must strive to maintain and restore ecosystem health at watershed and landscape scales. Thus, this is the approach the conservation strategy here employs. The approach seeks to prevent further degradation and restore habitat over broad landscapes as opposed to individual projects or small watersheds...”

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<sup>6</sup> Declaration of Gordon Reeves Ph.D. filed in 1999 in PCFFA v. NMFS Civ No. C 99-0067 R (W.D. Wash.). Full text of the declaration is included in Appendix A.



**FSEIS 3&4-320:** "...Projects can only proceed if watershed analysis and site-specific analysis and consultation find management activities consistent with...management direction. The consistency of these actions with specific prescriptions and long-term objectives of this proposal will either be affirmed by monitoring and research, or will be adapted to conform with the long-term objectives."

**FSEIS B-83:** "Implementing the ACS requires applying the standards and guidelines ...within the context of the overall ACS objectives."

**FSEIS B-83:** "The standards and guidelines are designed to focus the review of proposed and existing projects to determine their compatibility with the ACS."

**Record of Decision Page B-12; FSEIS 3&4-68:** "Appendix B6 describes the standards and guidelines that regulate activities within Riparian Reserves. These standards and guidelines are intended to prohibit and/or regulate activities that retard or prevent attainment of the ACS objectives."

**FSEIS Volume II, Appendix F. pg. F-166:** "The standards and guidelines in Appendix B6, Aquatic Conservation Strategy, provide the Riparian Reserve definitions, including the prescribed widths. The Aquatic Conservation Strategy objectives do not meet the definition of standards and guidelines and thus, are not included."

In a 2003 review of the science behind the ACS, Gordon Reeves wrote:

"The Aquatic Conservation Strategy was designed to restore and maintain the process that create and maintain conditions in aquatic ecosystems over time."

Reeves also wrote that successful implementation of the ACS would require:

"...policies that recognize the dynamic nature of aquatic ecosystems and describe practices that allow the systems to express a range of desired conditions over time."

Reeves noted that watersheds that support aquatic ecosystems display a range of conditions and not every reach of stream need be in good condition for the watershed to function properly. The full text of Reeves' report is in Appendix F.



## **Potential Changed Conditions**

The agencies considered whether large wildland fires, floods, droughts or El Niño weather patterns occurring since 1994 changed the Affected Environment of Environmental Consequences described in FEMAT report or the Northwest Forest Plan Final SEIS. These natural episodic disturbance events are an integral part of process-based management contained in the Aquatic Conservation Strategy. As stated in the FEMAT report (Page V-29) and the Northwest Forest Plan FSEIS (Page B-81):

“The heart of the approach is the recognition that fish and aquatic organisms evolved within a dynamic environment.”

The agencies determined that large fires, flood, drought and El Niño events occurring since 1994 are not changed conditions that would invalidate the four components of the ACS (watershed analysis, watershed restoration, Key Watersheds, Riparian Reserves). The Northwest Forest Plan and Aquatic Conservation Strategy require consideration of natural disturbances in land management decisions. The events occurring since 1994 will be factored into the planning process at all scales. The Proposed Action would not change the way the agencies respond to these events.

The Northwest Forest Plan provided an adaptive management approach to environmental conditions and events. The Northwest Forest Plan recognized that ecosystems are not static but are ever changing in response to conditions and events.

Further information about potential changed conditions is in Appendix E.

## **New Listings under Endangered Species Act and Clean Water Act**

Some people have suggested that new listings of fish under the Endangered Species Act, or new listings of streams as water quality impaired under the Clean Water Act, are changed conditions that may trigger a reconsideration of the Northwest Forest Plan.

The Northwest Forest Plan considered effects on 259 species of fish. This comprehensive consideration included species that have been recently listed. The ACS was designed to maintain and restore habitat for these species on Federal lands, including those that have been listed under the Endangered Species Act. The Proposed Action does not alter any of the assumptions or findings in the Northwest Forest Plan related to the viability of at-risk fish species.



The Riparian Reserves were widened in Alternative 9 to increase the probability that viability of at-risk fish species would be maintained. The probability of maintaining viability of at-risk fish species increased from 65 percent to 80 percent due to the increased Riparian Reserve widths.

Approximately 20 species of fish have been proposed for listing, or listed under the Endangered Species Act since 1994.<sup>7</sup> The Northwest Forest Plan anticipated Endangered Species Act listings (FSEIS Chapter 3&4 Page 202):

“...the [Aquatic Conservation] strategy can succeed at maintaining and restoring aquatic and riparian habitats regardless of what happens on Federal lands, but that would not ensure the population viability of many of the fish stocks evaluated in the SEIS. For these reasons, it is not possible to determine whether any of the alternatives in the SEIS would preclude listing of fish species under the Endangered Species Act.”

Nancy Foster, Ph.D., Acting Assistant Administrator for NMFS, wrote a comment letter to the Northwest Forest Plan Draft SEIS. In her letter, Dr. Foster wrote:

“The relatively large Riparian Reserves...combined with the requirements to conduct watershed analysis prior to any resource management activities and to implement comprehensive watershed restoration to accelerate habitat recovery, could avoid harm to anadromous fish in many watersheds throughout the range of the northern spotted owl.”

All of the components described in this excerpt were included in the selected alternative in the Northwest Forest Plan, and are not altered by the proposed amendment.

Approximately 83 sub-basins within the Northwest Forest Plan area contain streams that have been listed as impaired because of high water temperature and/or sediment loads. Several of these listings have occurred since 1994. This increase in listed waters is not necessarily related to an increase in degraded conditions. Since 1994, an intense effort has been underway to collect water quality information about streams that were not monitored previously. The increase in temperature listings has occurred in part because of widespread availability of inexpensive technology that can capture continuous, high quality water temperature data.

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<sup>7</sup> See Appendix D for current Endangered Species Lists



Appendix F, Page 173 of the Northwest Forest Plan FSEIS notes that:

“Not all areas have been inventoried to cover all riparian and aquatic systems on federal lands within the range of the northern spotted owl.”

Judge William Dwyer ruled on whether the new listings under the Endangered Species Act and Clean Water Act are changed conditions that require consideration in an SEIS as follows:

“The claims regarding certain fish and the declining water quality of streams relates not to new data but to changes in legal status under the Endangered Species Act and...the Clean Water Act; while these listings are important, they do not, in themselves, require a new SEIS.”<sup>8</sup>

## **Monitoring and Adaptive Management**

Implementation and effectiveness of the ACS is being assessed through the Interagency Regional Monitoring Program that has been in place for the Northwest Forest Plan since 1996. This program conducts broad-scale monitoring on Federally-managed lands within the Northwest Forest Plan area and represents the combined monitoring efforts of eight federal agencies and partnerships with state agencies and academic institutions.

The 2001 field season marked the sixth consecutive year of the Northwest Forest Plan implementation monitoring program. This program is designed to determine whether the Record of Decision and its corresponding standards and guidelines are consistently followed across the Northwest Forest Plan area. Overall, compliance in meeting the Northwest Forest Plan standards and guidelines was 98 percent for the 21 projects and watersheds monitored in 2001 (Annual Report 2001 Interagency Regional Monitoring).

Other ongoing efforts to evaluate the effectiveness of the ACS at watershed and broader scales include the Aquatic Riparian Effectiveness Monitoring Plan (AREMP), which was approved in March 2001. The AREMP report is in press at this time (Reeves et al 2003). The AREMP will provide information at the province scale in a decade or more.

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<sup>8</sup> ONRC Action v United States Forest Service, U.S.D.C., Western District of Washington, Civ. No. 98-942 WD, August 2, 1999, p 17



Recent water quality monitoring reports have been published in Oregon.<sup>9</sup> The “Oregon State of the Environment Report 2000” was produced to specifically describe the conditions and trends of Oregon’s environment and suggest ecosystem indicators to help track environmental progress in the state. The Oregon Department of Environmental Quality used 129 ambient monitoring stations to develop the Oregon Water Quality Index Summary Report for Water Years 1992 – 2001 (Cude 2001). Water quality increased at 66 sites, decreased at 7 sites, and stayed the same at 56 sites.

The monitoring time period has been too short for agencies to demonstrate how well the ACS has worked to improve aquatic habitats. The authors of the Aquatic Conservation Strategy stated that:

“We emphasize, however, that it will require time for this strategy to work. Because it is based on natural disturbance processes, it may take decades to over a century to accomplish all of its objectives.”

The Northwest Forest Plan also requires adaptive management. Adaptive management is a continuing process of action-based planning, monitoring, researching, evaluating, and adjusting with the objective of improving the implementation and achieving the goals of the selected alternative. Under the concept of adaptive management, new information will be evaluated and a decision will be made whether to make adjustments. Both alternatives include ongoing monitoring programs. The agencies also conduct effectiveness monitoring of water quality Best Management Practices included in all projects.

The watershed analysis process encourages informal updates as new information becomes available. Updated watershed analyses are likely to be an important future source of monitoring information.

## **Effects Analysis Framework**

This effects analysis supplements findings within the Northwest Forest Plan and its Final SEIS. Discussions about the Affected Environment and the Environmental Consequences of the ACS and Northwest Forest Plan are not repeated, but are incorporated by reference.

The IDT reviewed findings within the Northwest Forest Plan FSEIS and determined that the Proposed Action would not invalidate any of the assumptions or conclusions for the Selected Alternative 9 (see Appendix B for the findings review).

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<sup>9</sup> Similar data are not available for California and Washington.



### ***Other Analysis Efforts Within the Northwest Forest Plan Area***

Other planning efforts are underway within the Northwest Forest Plan area that may affect various Resource Management Plans and how they are implemented. The agencies are currently considering alternatives to modify or eliminate the Survey and Manage mitigation measure in the Northwest Forest Plan. In 2001, the Secretaries of Agriculture and the Interior amended the Northwest Forest Plan with the Record of Decision for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines.

Timber industry and county government associations litigated that decision. On September 30, 2002, the Secretaries entered into a settlement agreement that required the BLM and Forest Service to examine an alternative “that replaces the Survey and Manage mitigation requirements with existing Forest Service and BLM special status species programs to achieve the goals of the Northwest Forest Plan through a more streamlined process” in a new SEIS.

Other ongoing analysis efforts within the Northwest Forest Plan area include the Forest Service “Invasive Plant EIS,” the BLM and Forest Service “Port-Orford-cedar EIS,” and the BLM “Vegetation Treatments Programmatic EIS.” The Port-Orford-cedar EIS was necessitated by the Kern v. BLM decision of the Ninth Circuit. The BLM Vegetation Management EIS was initiated to address problems created by court injunctions from the 1980’s that still restrict BLM herbicide use.

The cumulative effects of proposed Northwest Forest Plan amendments are expected to be similar to effects analyzed in the 1994 Northwest Forest Plan FSEIS for Alternative 9. None of these efforts seek to change the predicted effects of the ACS. The decision whether or not to amend ACS language is not dependent on the other planning efforts.

## **Environmental Consequences**

The environmental consequences of the alternatives are highly speculative. The effects of No Action are particularly uncertain because the current language contains ambiguities that can be misinterpreted. The agencies believe that this language needs to be amended to clarify the ACS, but cannot quantify to what extent the amendment will result in increased implementation of projects needed to follow Northwest Forest Plan principles.



## ***Effects on Watershed Restoration***

Watershed restoration includes transportation system treatments, culvert removal and replacement, restoration silviculture in reserves, and stream enhancement projects. Between October 1997 and November 1998, watershed restoration efforts were focused on reducing road-related erosion, silvicultural treatments in Riparian Reserves to restore large conifer canopies and stream enhancement activities to restore channel form and function based on an extract from the BLM and FS Interagency Restoration Database.

Road-related restoration efforts include: road maintenance, decommissioning and closures; storm damage repairs; road resurfacing; placement of cross-drains to improve road drainage, and culvert replacements to allow the passage of fish, flood flows, bedload, and woody debris.

Riparian Reserves have been treated through precommercial and commercial thinning to promote more rapid development of large conifers for large woody debris recruitment and shade. Stream restoration work to restore habitat complexity, such as large wood placement or creation of off-channel rearing habitat, has also been accomplished.

A variety of funding sources, such as those related to timber sales, have been used to fund watershed restoration efforts. Other primary funding sources used to accomplish watershed restoration include Title II<sup>10</sup>, Jobs in the Woods Program, emergency flood repair, salmon recovery incentives and Bonneville Power Administration funding.

Watershed restoration is often associated with vegetation management projects (discussed below). Projects intended to reduce road-related adverse effects are often funded or accomplished as part of a timber sale project. Timber sales can provide a mechanism for restoration silviculture. Knudsen-Vandenberg funding generated from timber sales can be used for watershed restoration within sale areas on National Forest system lands. As the rate of timber sold declines, so does restoration work funded through timber harvest operations and sales.

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<sup>10</sup> Title II is part of the Secure Rural Schools and Community Self-Determination Act of 2000, PL 106-393. It allows counties to fund watershed restoration projects on Federal lands.



Appendix V-J of the 1993 FEMAT report states:

“Agency capacity to conduct road maintenance has recently declined greatly, as funds for maintenance and timber-purchaser conducted maintenance have been drastically reduced. This is resulting in progressive degradation of road drainage structures and function causing erosion rates and potentials to increase. This will worsen unless additional funding for road maintenance is provided and/or the road mileage is drastically reduced through decommissioning. If we do not maintain or remove the roads, mother nature will remove them, with serious consequences to aquatic habitats.”

The concerns expressed in this excerpt are still relevant. Reduced levels of watershed restoration could have serious consequences to aquatic habitats. Appendix V-J of the FEMAT report also stated that processes that have degraded watersheds would not be reversed without a comprehensive restoration program.

An ironic result of PCFFA v. NMFS is that Federal timber sale planners have become reluctant to include restoration work in proposed timber sale projects if the restoration work may result in disturbance to aquatic or riparian habitats and triggers the need for Endangered Species Act consultation.

### **Effects of No Action on Watershed Restoration**

At least some watershed restoration projects (road decommissioning, culvert removal and replacement, and stream enhancement) might not be implemented under No Action because land managers would encounter continued difficulty demonstrating that projects maintain the existing condition at all spatial scales.

Some watershed restoration projects were released under the PCFFA v. NMFS litigation, but the biological opinions that covered the projects were invalidated by the U.S. District Court. Some watershed restoration components were not released because they were attached to timber sales. The effect of new consultation processes on watershed restoration is unclear given the existing ACS language.

Under No Action, decreased timber harvest would reduce future opportunities for restoration projects connected to timber sales. The agencies would have continued uncertainty about their program of work. Uncertainty may affect the agencies ability to participate in funding partnerships.



## **Effects of the Proposed Action on Watershed Restoration**

More watershed restoration projects would be likely implemented under the Proposed Action than No Action. Opportunities to integrate timber sales and restoration projects would likely be more available if managers were not required to demonstrate that projects maintain the existing condition at all scales. Revenues from timber sales can provide funding for restoration projects; if the timber harvest level increases under the Proposed Action, the restoration project level would likely also increase.

An important component of the ACS is watershed analysis. The Proposed Action emphasizes that watershed analysis must be used to provide context for project planning.

## ***Effects on Vegetation Management***

Vegetation management includes timber management, harvest and sales; timber stand improvement projects; and fuels reduction projects. Some vegetation management projects overlap with watershed restoration projects described previously.

## **Timber Sales**

The Northwest Forest Plan established the term “Probable Sale Quantity” (PSQ) for estimates of average annual timber sale levels likely to be achieved. The Northwest Forest Plan used the term PSQ to acknowledge inherent uncertainties in the estimates (Johnson et al. 1993). The Northwest Forest Plan FSEIS (Chapter 3&4, Page 267) addressed the potential for the PSQ to change as National Forest and BLM District plans were completed or revised:

“Sustainable sale estimates will be made using more refined data and procedures available when Draft Forest and District Plans are completed or current plans are revised.”

The Northwest Forest Plan FSEIS (Chapter 3&4, Pages 266 and 268) estimated the PSQ at 958 million board feet (MMBF), plus an additional 10 percent volume estimated in “other wood” (cull, sub-merchantable, firewood, and other products) for a total of 1.1 billion board feet.



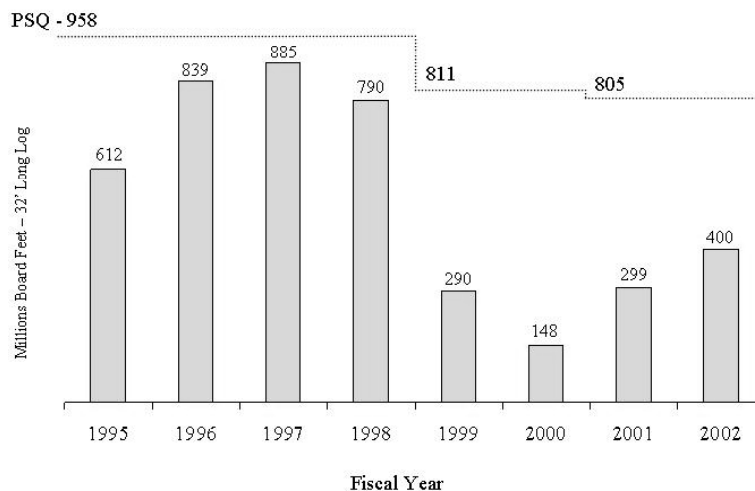
By 1998, PSQ across the Northwest Forest Plan area was reduced by 15 percent, to 811 MMBF. Revised Riparian Reserves acreage estimates at the local administrative unit level, was the single largest factor for the reductions in PSQ. It was determined that more of the landscape was in Riparian Reserves and therefore not available to contribute to the PSQ.

The Northwest Forest Plan assumed that 90 percent of the early decades PSQ would come from late-successional and old growth forest, much of it through regeneration harvest. Individual Resource Management Plans outline assumptions for the amount and timing of silvicultural prescriptions such as thinning, partial cutting, and regeneration harvesting. The planning assumptions are based on the type of forests and the mix of older and younger forests available for harvest within each administrative unit.

Achievement of Probable Sale Quantities for the individual administrative units, and for the Northwest Forest Plan area as a whole, are contingent on the ability to implement the full range of silvicultural prescriptions outlined in individual Resource Management Plans.

The agencies' annual timber sale offerings are shown in Figure 4. Since 1999, the agencies offerings have been reduced to 35 percent of the PSQ. The reduction in sale offerings are the result of appeals and protests on individual projects, enjoined biological opinions in PCFFA v. NMFS litigation, and implementation of the Survey and Manage mitigation measures, among other reasons.

**Figure 4. Timber Sale Volume Offered in Comparison to PSQ, 1995-2002**





The November 2000 Final SEIS for Amendment to...Survey and Manage...(USDA, USDI 2000, Page 434) estimated that without modification, over time the Survey and Manage mitigation measures would result in a 37 percent reduction in PSQ. The agencies decided to modify the Survey and Manage mitigation measures in part to reduce impacts on forest management activities. Under the Preferred Alternative in the 2000 Survey and Manage Final SEIS, agencies were expected to come closer to meeting the PSQ.

Most of the agencies' current inability to meet PSQ can be attributed to their response to the PCFFA v. NMFS litigation. In Fiscal Years 2001, 2002 and 2003, the Oregon BLM provided interim guidance on how to prepare and offer timber sales, given the current uncertainty. The most recent BLM Bulletin of the three (IB-OR-2003-026) stated:

“The nature of the situation dictates the development of a FY 2003 Timber Sale Plan that continues to place interim emphasis on partial cuts. This emphasis (a continuing interim strategy) is driven by circumstances in an attempt to effectively utilize appropriated funds and implement the Allowable Sale Quantity (ASQ) and socioeconomic objectives of the [Northwest Forest Plan] to the maximum extent possible. It is anticipated that as the current challenges are resolved, the emphasis for balanced [Northwest Forest Plan] implementation, i.e., partial cuts, regeneration cuts, restoration as a requirement of timber sale contracts, etc., will resume.”

### **Effects of No Action on the Timber Sales**

No Action is expected to result in continued uncertainty about the timber sale program. NOAA Fisheries and the U.S. Fish and Wildlife Service (USFWS) are developing new approaches to consultation that do not rely on the ACS as a surrogate for Endangered Species Act jeopardy analysis. The new approaches would be applied to programmatic consultation. However, ACS ambiguities would continue to create the potential for litigation under statutes such as FLPMA and NFMA.

The agencies have not been able to achieve the level of timber sales predicted for the Northwest Forest Plan. In recent years, the agencies have offered for sale 35 percent of the PSQ volume; future sale levels under No Action are unknown but are most likely to be similar to recent years. Over the long term, No Action could significantly reduce the agencies' ability to meet PSQ. Uncertainty has indirect, unpredictable effects such as loss of experienced personnel or industry infrastructure.



Agency ability to achieve PSQ may be affected by other planning efforts such as the Survey and Manage SEIS. Proposed changes to the Survey and Manage mitigation measures may help agencies come closer to meeting the PSQ.

### **Effects of the Proposed Action on Timber Sales**

Amended ACS language would not directly affect timber sales covered under biological opinions that were enjoined in PCFFA v. NMFS. New biological opinions would have to be issued by NOAA Fisheries before these projects could be implemented. How these, or other Federal timber sales would be evaluated under a new consultation process is not known.

The agencies are likely to continue to develop timber sale projects in an atmosphere of uncertainty, partly because groups opposed to timber sales are likely to continue to initiate litigation. The clarified language would only reduce potential for litigation regarding specific ambiguities within ACS wording. Land managers would be more likely to successfully plan and implement projects that follow the ACS. Agencies would be more likely to achieve PSQ levels than under No Action.

An important component of the ACS is watershed analysis. The Proposed Action emphasizes that watershed analysis must be used to provide context for project planning.

Currently, the agencies are considering further modification/elimination of the Survey and Manage mitigation measures in response to litigation. Proposed changes to the Survey and Manage mitigation measures may help agencies come closer to meeting the PSQ. The effects of further modifications to the Survey and Manage mitigation measures will be disclosed in a separate SEIS.

### **Timber Stand Improvement and Fuels Reduction**

Under No Action, some timber stand improvement and fuels reduction projects may be stopped or delayed by appeals and litigation due to misunderstanding of the ACS. Agencies have not identified specific projects that have been hindered by the existing ACS language or interpretations. Land managers would likely have some difficulty demonstrating that the projects follow the ACS given the current interpretation.

Some of these projects are associated with timber sales or are funded by timber sale receipts. Under the Proposed Action, land managers would likely be more successful in designing projects to follow the ACS.



## ***Indirect and Cumulative Effects of No Action***

### **Physical and Biological Effects**

Indirect and cumulative physical and biological effects for No Action are even more speculative than the programmatic effects. Under No Action, projects with any short-term impact could have the potential to be stopped or delayed due to ACS misinterpretations, appeals, and litigation. In the short term, delaying or avoiding projects could have some positive benefits on the physical and biological environment, since the risk of short-term adverse effects from the projects would be reduced or eliminated. However, opportunities to restore watersheds through cumulative action over time could be foregone.

Delays in restoration can have negative longer-term consequences to aquatic ecosystems. Under No Action, less active restoration would likely occur than under the Proposed Action. Reduced levels of restoration could reduce the rate of watershed recovery.

In addition, if the ACS interpretation results in delayed implementation of fuels reduction projects, the risk of adverse effects of wildland fire could increase.

### **Socio-economic Effects**

No Action would continue to constrain the agencies' ability to achieve the desired levels of timber sales, timber stand improvement, fuels reduction, and watershed restoration. Continued reduced timber sale levels may negatively affect employment within the wood products industry. Reduced levels of timber stand improvement, fuels reduction and watershed restoration associated with No Action could similarly affect forestry-based employment. However, direct employment and associated indirect employment effects are not quantifiable in the short- or long-term.

Uncertainty about overall Federal timber sale programs may also negatively affect timber industry investment founded on predictable timber supplies. If timber sale receipts are reduced, government revenues and revenue sharing with states and counties are reduced.



## ***Indirect and Cumulative Effects of the Proposed Action***

### **Physical and Biological Effects**

Under the Proposed Action, land managers would continue to plan watershed restoration and vegetation management programs to meet Northwest Forest Plan goals. The language change would allow land managers to more successfully demonstrate that projects follow the ACS, with a likely result of more successful project implementation.

If the Proposed Action results in increased vegetation management and watershed restoration activities, risk of adverse short-term, site-level impacts would increase proportionately to the amount of work implemented. Predicted effects are described in the Northwest Forest Plan FSEIS. The potential adverse effects to aquatic and riparian habitats include: risk of increased sedimentation from disturbance from road work and logging operations, risk of effects to peak flows from canopy removal; and risk of loss or degradation of wildlife habitat. Federal land managers evaluate these effects project by project and cumulatively, and include mitigation measures to reduce the risk of adverse effects from projects. These potential effects are also evaluated at a programmatic level within Resource Management Plans.

The Northwest Forest Plan acknowledges that disturbances are natural occurrences within forested habitats and that management of this habitat without disturbance is impossible. Some level of disturbance is necessary, and even beneficial to the ecosystem. The clarified language for the ACS is expected to result in improved decisions that reflect these concepts. The amendment does not change the intent of the Aquatic Conservation Strategy, “to restore and maintain the ecological health of watersheds and the aquatic ecosystems contained within them on Federal lands.” (Northwest Forest Plan Record of Decision Page B-9). The Proposed Action does emphasize that watershed analysis must be used to provide context for project planning. This does not imply that watershed analysis (WA) recommendations would be utilized as decisions, as the WA is not a decision making document. The information provided by the WA would help provide the context and support for certain actions.

The Northwest Forest Plan FSEIS disclosed programmatic effects of several alternatives for land management across the Northwest Forest Plan area, including the selected Alternative 9. The effects of the Proposed Action (in the ACS SEIS) are consistent with the effects of Alternative 9 in the Northwest Forest Plan. These effects are discussed in Appendix B in this ACS DSEIS.



Timber harvest rates on non-federal lands since 1994 have not invalidated Northwest Forest Plan findings and assumptions. Increased harvests on non-Federal lands were assumed in the FSEIS.

The Northwest Forest Plan FSEIS recognized the potential for degradation due to non-federal forest practices and stated, “The success of the [Aquatic Conservation] Strategy does not depend on actions on non-Federal lands.”

## **Socio-economic Effects**

The Proposed Action could increase agency success in planning and implementing projects that follow the ACS and result in positive effects to direct wood products manufacturing, restoration and forestry employment and associated indirect employment. These effects are not quantifiable.

Increased certainty about Federal timber sale programs may positively affect timber industry investment. If timber sale receipts are increased, government revenues and revenue sharing with states and counties also increase. Overall, the Proposed Action would have similar socio-economic effects to those of Alternative 9, to the extent that agencies are able to implement projects and programs needed to meet Northwest Forest Plan goals.

## **Required Disclosures**

### ***Relationship Between Short-term Uses and Long-term Productivity***

The Proposed Action does not approve any short-term uses nor would it have any effects on long-term productivity. The ACS is still intended to protect long-term productivity of aquatic and riparian ecosystems within the Northwest Forest Plan area.

### ***Conflicts with Other Plans***

This SEIS incorporates by reference the discussion in the Northwest Forest Plan Final SEIS concerning conflicts with other plans (USDA, USDI 1994a, pp. 3&4-319 and 320, and Appendix D). Limited changes to language in the ACS would not alter the conclusion of the Northwest Forest Plan Final SEIS regarding the possible conflicts with other plans.



### ***Irretrievable and Irreversible Commitment of Resources***

The Proposed Action does not make any irretrievable or irreversible commitments of resources.

### ***Civil Rights and Environmental Justice***

No disparate or adverse effects are identified to groups of people identified in Civil Rights statutes or Executive Order 12898 (Environmental Justice) from the Proposed Action. This finding is due largely to the administrative nature of the proposed change (i.e. a change in wording of an existing SEIS to clarify requirements). A Civil Rights Impact Analysis was prepared to comply with all applicable civil rights statutes, including Title VI of the Civil Rights Act of 1964.

### ***Effects on Critical Elements as Defined in the BLM NEPA Handbook (H-1790-1)***

Both agencies require disclosure of effects on several critical elements of the human environment. These include air quality, Areas of Critical Environmental Concern, Cultural Resources, prime and unique farm and forest lands, floodplains, Native American religious concerns, threatened and endangered species, hazardous materials and solid waste, surface and ground water quality, wetlands and riparian zones, wild and scenic rivers, noxious weeds and environmental justice. The Proposed Action does not have the potential to affect any of these elements beyond the levels disclosed previously in the Northwest Forest Plan Final SEIS (see Appendix B for details). Appendix D includes endangered species information.

### ***American Indian Rights and Resource Issues***

Discussion about tribal treaty rights and trust resources starts on Page 54 of the Northwest Forest Plan Record of Decision. American Indian treaty rights and trust resources will be protected under the proposed amendment. A reduction in timber sales may affect tribes' ability to secure resources for traditional and cultural uses, such as logs for canoes and long houses.

The Proposed Action would affect management of the Coquille Forest. These lands are owned by the Coquille Indian Tribe, are part of the Coquille Indian Reservation, and are held in trust by the United States. An Act of Congress in 1996 transferred ownership of about 5,400 acres of federal land within the Northwest Forest plan transferred to the Coquille Indian Tribe. The Act required that Coquille Forest comply with the adjacent Coos Bay BLM District Resource Management Plans. The Coquille



Forest would be affected by this proposed amendment to the Coos Bay BLM Resource Management Plan.

The Proposed Action has effects on tribal treaty rights and trust resources similar to Alternative 9 in the Northwest Forest Plan.



## CONSULTATION AND COORDINATION

This SEIS was prepared by an Interagency Interdisciplinary Team (see List of Preparers below). Several agencies provided consultation and coordination input. The primary agencies involved include:

Department of Commerce,  
    National Oceanic and Atmospheric Administration (NOAA Fisheries) ,  
The Regional Ecosystem Officer (REO)  
Environmental Protection Agency (EPA)  
United States Department of the Interior,  
    Bureau of Land Management,  
    Bureau of Indian Affairs,  
    Solicitors' Office,  
    U.S. Fish and Wildlife Service (USFWS),  
United States Department of Agriculture,  
    US Forest Service,  
    Office of Government Counsel,  
    Pacific Northwest Research Station

## Distribution of the Draft Supplemental Environmental Impact Statement

This Draft Supplemental Environmental Impact Statement (SEIS) was mailed to the following individuals, groups, and organizations. The list includes elected officials; federal agencies; state, local, and county governments; American Indian Tribes and Nations; businesses; other organizations; libraries; and individuals. It is also available via the Internet at: <http://www.reo.gov/acs/>.

### *Elected Officials*

#### California

Senator Barbara Boxer  
Senator Dianne Feinstein  
Representative Sam Farr  
Representative Wally Herger  
Representative Barbara Lee  
Representative Robert Matsui  
Representative George Miller  
Representative Doug Ose  
Representative Nancy Pelosi  
Representative Mike Thompson  
Representative Lynn Woolsey

#### Oregon

Senator Gordon Smith  
Senator Ron Wyden  
Representative Earl Blumenauer  
Representative Peter DeFazio  
Representative Darlene Hooley  
Representative Greg Walden  
Representative David Wu

#### Washington

Senator Maria Cantwell  
Senator Patty Murray  
Representative Brian Baird  
Representative Norman Dicks  
Representative Jennifer Dunn  
Representative Richard Hastings  
Representative Jay Inslee  
Representative Rick Larsen  
Representative Jim McDermott  
Representative George Nethercutt  
Representative Adam Smith



***Intergovernmental Advisory Committee (to the Regional Ecosystem Office)***

Anne Badgley  
U.S. Fish and Wildlife Service  
Elaine Brong  
Bureau of Land Management,  
OR/WA  
Kent Connaughton  
USDA Forest Service, Region 5  
Merv George, Jr.  
CA Indian Forest and Fire  
Management Council  
Linda Goodman  
USDA Forest Service, Region 6  
Bob Graham  
Natural Resources  
Conservation Service  
Peter Green  
Office of the Governor, State  
of Oregon  
David Herrera  
Northwest Indian Fisheries  
Commission

Colonel Richard Hobernicht  
U.S. Army Corps of Engineers  
Jon Jarvis  
National Park Service  
Anne Kinsinger  
U.S. Geological Survey  
Robert Lohn  
National Marine Fisheries  
Service  
Albert McKee  
Representative of Washington  
Counties  
Rocky McVay  
Association of O & C Counties  
Mary Nichols  
California Resources Agency  
Robert Nichols  
WA State Senior Executive  
Policy Assistant

Jennifer Orme-Zavaleta  
Environmental Protection  
Agency  
Michael Pool  
Bureau of Land Management,  
CA  
Dave Powers  
Environmental Protection  
Agency  
George Smith  
Intertribal Timber Council  
Stan M. Speaks  
Bureau of Indian Affairs  
Bob Szaro  
USDA Forest Service, PNW  
John Woolley  
Representative of California  
Counties

***Federal Agencies***

Advisory Council on Historic  
Preservation  
Bonneville Power  
Administration  
Environmental Protection  
Agency  
Environmental Resources  
Center  
Geographic Implementation  
Unit  
Operations Office  
Region 9  
Region 10  
Federal Energy Regulatory  
Commission  
Klamath Soil & Water  
Conservation  
Portland Federal Executive  
Board

Regional Ecosystem Office  
U.S. Department of Agriculture  
Animal and Plant Health  
Inspection Service  
Environmental Coordinator of  
Ecological Services  
Forest Service  
Pacific Northwest Regional  
Office and Forests  
Pacific Southwest Regional  
Office and Forests  
Pacific Northwest Research  
Station  
Pacific Southwest Research  
Station  
National Agriculture Library  
Natural Resource  
Conservation Service  
OPA Publication Stockroom

U.S. Department of Commerce  
NOAA Fisheries (National  
Marine Fisheries Service)  
U.S. Department of Defense  
Army Corp of Engineers  
PE PF  
Seattle District  
Walla Walla District  
Naval Submarine Base  
Bangor  
U.S. Department of Energy  
U.S. Department of Interior  
Bureau of Indian Affairs  
Bureau of Land Management  
National Park Service  
Office of Environmental Policy  
and Compliance  
Bureau of Reclamation



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National Park Service  
Ft. Vancouver National  
Historic Site  
Office of the Regional  
Solicitor  
Office of the Secretary  
U.S. Fish and Wildlife  
Service

U.S. Geological Survey  
Biological Resources  
Division  
Pacific Northwest District  
U.S. Department of Justice  
U.S. Ecosystem Restoration  
Office

U.S. Small Business  
Administration  
U.S. Department of  
Transportation  
Highway Division  
Federal Highway  
Administration

***State, County, and Local Governments***

California

State of California  
Caltrans  
Department of Forestry  
Department of Forestry and  
Fire Protection  
Department of Water  
Resources  
Fish and Game Commission  
Lands Commission  
Office of the Governor  
Parks and Recreation  
Resources Agency  
State Clearinghouse  
California Regional Water  
Quality  
City of Yreka  
Colusa County, Agriculture  
Department  
Del Norte County Board of  
County Supervisors  
Eel - Russian River Commission  
Glenn County  
Agriculture Department  
Board of Directors  
Board of Supervisors  
Coop Extension Office  
Planning Department  
Humboldt County Board of  
Supervisors  
Lake County Board of  
Supervisors  
Mendocino County  
Board of Supervisors

Cooperative Extension  
Planning Department  
Water Agency  
North California Water  
Association  
Pinecrest Permittees Association  
Shasta County Board of  
Supervisors  
Siskiyou County  
Administrators  
Board of Supervisors  
Sonoma County Conservation  
Action  
Tehama County  
Board of Supervisors  
Planning Department  
Trinity County, Board of County  
Supervisors

Colorado

San Miguel County

District of Columbia

Rural Utilities Service

Oregon

State of Oregon  
Department of Agriculture  
Department of Energy  
Department of  
Environmental Quality  
Department of Fish &  
Wildlife  
Department of Forestry

Department of Geology and  
Mineral Industries  
Department of Human  
Resources  
Department of Revenue  
Department of  
Transportation  
Employment Department  
Executive Department  
Farm Bureau Federation  
Historic Preservation Office  
Marine Board  
Office of The Governor  
Parks And Recreation  
Police  
Public Interest Research  
Group  
Small Business  
Administration  
Water Resources Department  
Association of O&C Counties  
Association of Oregon Counties  
City of Cottage Grove  
City of Eugene, Parks and  
Recreation District  
City of Klamath Falls  
Coos County Board of  
Commissioners  
Curry County Board of  
Commissioners  
District 17 Watermaster  
Douglas County  
Board of Commissioners  
Natural Resources



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Conservation Service	Council	Department of
Planning Department	Portland Chamber of Commerce	Transportation
Hood River County	Portland Water Bureau	Executive Policy Office
Jackson County Commissioners	Rogue Institute of Economy And	Office of The Governor
Jefferson County Commissioners	Ecology	Chelan County Planning
Josephine County	Rogue Valley Council of	Department
Courthouse	Governments	City of Port Townsend
Forestry Department	Southeastern Oregon Advisory	Clallam County Commisioner
Planning Department	Council	Forks Chamber of Commerce
Klamath Basin Water Resources	Umpqua Regional Council of	Jefferson County Commissioners
Advisory Commit	Governments	Lewis County Commissioners
Klamath County	Wasco County Commissioners	Mason County Commissioner
Klamath County Commissioners		Skagit County
Klamath Irrigation District	<u>Washington</u>	Skamania County Planning
Lake County	State of Washington	Department
Lane County Commissioner	Department of Ecology	Washington State Association of
Meadows Drainage District	Department of Fish and	Counties
Mohawk Watershed Planning	Wildlife	Washington Environmental
Group	Department of Natural	Council
Northwest Power Planning	Resources	

***American Indian Tribes and Nations***

Big Valley Rancheria	Cowlitz Indian Tribe	Lummi Tribe of The Lummi
Blue Lake Rancheria	Cowlitz Wahkiakum Council of	Reservation
Columbia River Inter-Tribal Fish	Government	Makah Tribe
Commission	Coyote Valley Rancheria	Muckleshoot Indian Tribal
Colville Confederated Tribes	Elk Valley Rancheria	Council
Colville Tribal Office	Grindstone Rancheria	Native American Heritage
Confederated Tribes of Grande	Hoh Tribe	Committee
Ronde Indians	Hoopa Tribal Fisheries	Native American Program
Confederated Tribes of Lower	Department	Oregon Legal Services Corp.
Coos	Hoopa Valley Tribal Council	Nisqually Indian Community
Confederated Tribes of Siletz	Intertribal Timber Council	Council
Indians of Oregon	Jamestown S'kallam Tribe	Nooksack Indian Tribal Council
Confederated Tribes of The	Kalapooya Sacred Circle	Northwest Indian Fisheries
Chehalis Reservation	Alliance	Commission
Confederated Tribes of The	Karuk Tribe of California	Paskenta Band of The Nomlaki
Warm Springs Reservation of	Klamath General Council	Point-No-Point Treaty Council
Oregon	Klamath Indian Game	Port Gamble Band of S'klallam
Coquille Indian Tribe	Commission	Indians
Covelo Indian Community	Lower Elwha S'klallam Tribe	Puyallup Tribal Council
Cow Creek Band of Umpqua	Lummi Indian Business Council	Quinault Indian Nation
Tribe of Indians		



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Reservation Ranch	Shoalwater Bay Tribal Council	Tolowa Nation
Resighini Rancheria	Siletz Tribal Council	Tsnungwe Council
Robinson Rancheria Pomo Indian Tribe	Snohomish Tribe	Tulalip Board of Directors
Rohnerville Rancheria	Squaxin Island Tribal Council	Twin Rocks Inholders
Round Valley Indian Tribes	Stillaguamish Board of Directors	Upper Lake Rancheria
Samish Indian Tribe	Suquamish Tribal Council	Upper Skagit Indian Tribal Council
Sauk Suiattle Indian Tribal Council	Swinomish Indian Tribal Community	Yakama Indian Nation Tribal Council
Shasta Nation	Table Bluff Reservation	Yurok Tribe
	The Klamath Tribes	

***Businesses***

Adobe Rose	Carson Helicopters	Consulting
Alder Creek Lumber Co.	Cascade Timber Consulting	Freres Lumber Co., Inc.
Alpha World International Corp.	Cavanaugh Forest Industries	Freshwater Farms
American Forest and Paper Assn.	CH2M Hill Northwest	Future Logging Co.
American Forest Resource Council	Clear Creek Copters, Inc.	Galea Wildlife Consulting
American Forestry Association	Clifford, Chance, Rogers and Wells Law Firm	Gary Cook & Associates
American Rivers, Inc.	Columbia Forest Products	Georgia Pacific West, Inc.
Amerititle	Columbia Helicopters, Inc.	Georgia Pacific Corporation
Armco	Conifer Pacific, Inc.	Giustina Land & Timber Co.
Associated Oregon Industries	Consulting Foresters	Glide Lumber Co.
Associated Oregon Loggers	Crazy Moose Ranch	GSD Associates, Inc.
Avison Lumber Co.	Crown Pacific	Gustin Enterprises
B&B Logging	Crystal Mountain	Haglund, Kirtley, Kelley and Horngren
B.S. Roads, Inc.	David Evans and Associates, Inc.	Hampton Tree Farms
BAC Logging	Deer Creek Timber, Inc.	Harwood Products
Barnes & Associates, Inc.	Deixis Consultant	Hendrix Enterprises
Berry Botanical Garden	Douglas County Lumber Co.	Herbert Lumber Co.
Blue Lake Forest Products, Inc	Douglas Timber Operators	High Cascade, Inc.
Boise Cascade Corporation	Dreyer Lapidus Geyer & Van Horn, Inc.	Hillcrest Vineyard
Brecher & Volker LLP	DRJohnson Lumber Co.	Huffman & Wright Timber Corporation
Brewley, Inc.	East Fork Lumber Co., Inc.	Hull Oakes Lumber Co.
Brisbane	Edaw, Inc.	Hydro Energy Development Corporation
Burlington Northern, Inc.	Eel River Sawmills, Inc.	Independent Thinning
Buse Timber & Sales, Inc.	Enoch Skirvin & Sons, Inc.	Indian Hill LLC
C & D Lumber Co.	Ericson Air Crane Co.	Indian Hill Timber Co.
C.E. Exploration Co.	Forest For The Future, Inc.	Industrex Unlimited
California Nickel Corporation	Forestry and Resource	International Paper



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J. Davidson & Sons Construction	Oregon Forest Industry Council	Stevens Pass
Jeld Wen, Inc.	Oregon Zoo	Superior Lumber Co., Inc.
K.D. Logging	Overland Express	Sustainable Northwest
Keller Lumber Co.	Pacific Northwest Ski Areas Assn.	Swanson Group
Ken Sorenson Logging, Inc.	Pacific Power and Light	Swanson Superior Forest Product, Inc.
Klamath Insurance Center	Pan Pacific Forestry	T.H. Ireland, Inc.
Klamath Potato Growers Association	Perkins Coie LLP	The Nicholoff Company
Kogap Manufacturing Co.	Perpetual Forest Resources	The Timber Company
Land & Water Consulting, Inc.	Phillips Petroleum Co.	Thinking, Inc.
Laughing Horse Book Store	Plum Creek Timber Co.	Thomas Lumber Co.
Law Office of Nancy Page	Public Timber Purchasers Group	Three Rivers Logging Co.
Lee Enterprises	Quafco	Timber Data Company
Leo Miller Contracting	Rayonier, Inc.	Timber Products Co.
Logging Engineering Int., Inc.	Resource Recovery Group, Inc.	Timberland Logging
Lone Rock Timber Co.	Resources Northwest Consultants	Trinity River Lumber Co.
Longview Fibre Corporation	Richard L. Willis Logging	Umpqua Watersheds, Inc.
Lusignan Forestry, Inc.	Roberts Cummings, Inc.	US Forest Industries, Inc.
M&A Broken Limb	Rocking C Ranch	US Timberlands Klamath Falls LLC
Madroak Logging	Rogue Forest Protective Association	Wards Creek Logging
Marys River Lumber	Rosboro Lumber Co.	Washington Belt & Drive Systems
Mason Bruce & Girard, Inc.	Roseburg Forest Products	Washington Contract Loggers Association
Mater Engineering, Ltd.	Rough & Ready Lumber Co.	Washington Forest Law Center
Matesol	Ruth Jewelry	Westbrook Land and Timber
McFarland Cascade	Salt Springs Logging	Western Forest Protection Association
McKenzie River Guides	Saltman and Stevens, P.C.	Western Timber Co.
Merlin Biological	SDS Lumber Company	Western Wood Products Association
Merrill & Ring	Seneca Jones Timber Co.	Westest Logging
Mountain Title Company	Seneca Sawmill Company	Weyerhaeuser Co.
Mt. Hood Meadows	Sequoia Associates	Wildlife Management Institute
New Creation Logging	Sierra Pacific Industries	Wilkins, Kaiser, & Olsen
Northwest Forest Resources	Silver Butte Timber	Willamette Industries
Northwest Forestry Association	Simpson Door Co.	Wolfe's Guide Service
Northwest Mining Association	Simpson Investment Co.	Woody Contracting, Inc.
Northwest Mycological Consultants, Inc.	Siskiyou Coop., Inc.	Woolley Enterprises, Inc.
Northwest Timber Review	Snowy Butte Helicopters	WTD Industries, Inc.
Northwest Whitewater Excursions	South Umpqua State Bank	
NRM Corp	Sparkling and Son, Inc.	
Offices of Marin Psychological Services	Spider Webb Ent., Inc.	
	Starfire Lumber Co.	



## **Other Organizations**

1000 Friends of Oregon	California Cattlemens Association	Forest Issues Group
1000 Friends of The Earth	California Coalition for Alternatives to Pesticides	Forest Landowners of California
Alameda Creek Alliance	Californians For Alternatives to Toxins	Four Runners Four Wheel Drive Club
Allegheny Defense Project	California Lichen Society	Franciscan Sisters of the Poor
Alpine Lakes Protection Society	California Native Plant Society	Friends of Clackamas River
American Alpine Institute	California Trout	Friends of Del Norte County
American Fisheries Society	California Wilderness Coalition	Friends of the Greensprings
American Lands	Canadian Museum of Nature	Friends of The River
American Lands Alliance	Cascadia Forest Alliance	Friends of Trees
Ancient Forest Defense Fund	Cascadia Wildlands Project	Gifford Pinchot Task Force
Applegate Partnership	CATs	Global Peoples Assembly Network
Applegate River Watershed Council	Central Cascades Alliance	Grants Pass & Josephine County Chamber of Commerce
Arc-En-Ciel	Central Oregon Motorcycle and ATV Club	Grants Pass Nordic Club
Association of Northwest Steelheaders	Central Valley WQCB	Great Lake United
Association of Oregon Counties	Cheetwoot Wilderness Alliance	Greystone
Audubon Society	Chehalis Business Council	Headwaters
Altacal	Chehalis River Council	High Country Citizens Alliance
Black Hills	Citizens For Better Forestry	High Desert Trail Riders
Columbia Gorge	Citizens Interested In Bull Run	Hood Canal Coordinating Council
Corvallis	Clackamas-Marion Forest Protection Assn.	Humanity
Golden Gate	Claggett Creek Watershed Council	Inland Empire Public Lands Council
Grays Harbor	Coalition on Environment & Jewish Life	Institute for Applied Ecology
Kalmiopsis	Coast Range Association	Institute for Policy Research
Kitsap	Columbia Basin Wildlife Association	Izaak Walton League of America
Kittitas	Communities for a Great Oregon	Keep Oregon Green
Klamath Basin	Concerned Friends of Ferry County	Keslick and Son Modern Arboriculture
Leavenworth	Concerned Friends of the Winema	Kettle Range Conservation Group
National	Corvallis Forest Issues Group	Klamath Basin Snowdrifters
N. Central Washington	Cottage Grove Historical Society	Klamath Forest Alliance
Pilchuck	Deer Creek Valley Natural Resource Conserve	Klamath Historical Society
Portland	Defenders of Wildlife	Klamath Siskiyou Wildlands Center
Rainier	Drift-A-Way Snowmobile Club	Klamath Yacht Club
Redwood Chapter	Ducks Unlimited-South Oregon	La Canada Flintridge Trails Council
Rogue Valley	Earth Justice Legal Defense Fund	Land and Water Fund of the Rockies
San Juan Islands	Ecoforestry Institute	Lassen Forest Preservation Group
Seattle	Ecology Center of Southern California	League of Wilderness Defenders-
Siskiyou	EF! Wolf Action Network	League of Women Voters of Lane County
Spokane	Endangered Species Coalition	Lincoln County Mycological Society
Umpqua Valley	Environmental Protection Information Center	Little River Committee
Bark	Environmental Resources Center	M.U.D.D.
Baron Family Partnership	Essex Junction Environmental Group	Marion County Water Watch
Basketweavers Project	Forest Conservation Council	Mattole Salmon Group
Bike To Nature	Forest Guardians	Mazama Conservation Committee
Biodiversity Northwest		McKenzie Guardians
Blue Ribbon Coalition		McKenzie River Trust
Breitenbush Community		McKenzie Watershed Council
Breitenbush Hot Springs		
Brownsville Pioneer Saddle Club		
Butte Falls Advocates		



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Mendocino Environmental Center	Oregon Small Woodlands Association	South Carolina Forest Watch
Mendocino Forest Watch	Oregon Trail Coordinating Council	Southern Appalachian Biodiversity Project
Moose School Productions	Oregon Trout	Southern Oregon Alliance for Resources
Mt. Mazama Mushroom Association	Oregon Waterfowl and Wetlands	Southern Oregon Forest Coalition
Mt. Adams Adopt-A-District	Oregon Wetlands Joint Venture	Southern Oregon Timber Industry Association
National Association of Conservation	Oregon Wildlife Federation	Southern Willamette Earth First! Steamboaters
National Resources Conservation Service	Oregonians for Action	Stillwater Sciences
National Wildlife Federation	Oregonians for Food and Shelter	Stop Oregon Litter and Vandalism
Native Fish Society	Ouachita Watch League	Sublette Riders Association
Native Plant Society of Oregon	Pacific Biodiversity Institute	Sutherlin Watershed Action Committee
Audubon	Pacific Coast Federation of Fisherman's Assn.	Takilma Watershed Committee
Siskiyou Chapter	Pacific Crest Trail Association	TELAV
Nature Conservancy	Pacific Northwest 4 Wheel Drive Assn.	The Cascadians
Washington	Pacific Rivers Council	The Ecology Center
Nature Society	Pacific Wildlife Research	The Nature Conservancy
NCASI West Coast Regional Center	PEER	The Ptarmigans
North Applegate Watershed Association	People for the USA Happy Camp	The Wilderness Society
North Coast Recreation Coalition	Predator Conservation Alliance	Northwest Regional Office
Northcoast Environmental Center	Public Lands Foundation	Trees of Mystery
Northwest Ecosystem Alliance	Reed College Forest Watch	Trout Unlimited
Northwest Environmental Defense Center	River Network	Umpqua Watersheds, Inc.
Northwest Old-Growth Campaign	Rocky Mountain Ecosystem Defense	United Anglers of California
Northwest Rafters Association	Rogue Fly Fishers	University of Oregon, Survival Center
Northwest Coalition For Alternatives To Pesticides	Roseburg Resources	Vancouver Wildlife
Nuview -Evaluation & Learning	Rural Information Network	Washington Wilderness Coalition
Oak Ridge National Laboratory	Santiam Wilderness Committee	Washington State Hi-Lakers
OFREG	Save Our Klamath Jobs	Washington State Snowmobile Association
Olympic Forest Coalition	Seattle Lichen Guild	Washington Trout
Olympic Natural Resources Center	Shenandoah Ecosystems Defense Group	Washington Wilderness Coalition
Olympic Rivers Council	Sierra Club	Water For Life
Oregon Bicycling Advisory Committee	Cascade Chapter	WELC
Oregon Cattlemans Association	Illinois Valley	West Montana Mycological
Oregon Coast Mycological Society	Many Rivers Group	Western Environmental Law Center
Oregon Council Rock and Mineral Clubs	Northern Great Plains	Western Fire Ecology Center
Oregon High Desert Museum	Northwest	Western Forest Industries Association
Oregon Historical Society	New York City Chapter	Western Forestry & Conservation Association
Oregon Hunters Association	Plant Society	Western Mining Council
Oregon Independent Miners/BMOA	Redwood Chapter	Wetlands Conservancy
Oregon Institute of Technology	Rogue Group	Wilderness Watch
Oregon Lands Coalition	Tillamook	Northwest Chapter
Oregon Mycological Society	Yahi Group	Wildlife Society, Oregon Chapter
Oregon Natural Desert Association	Sierra Club Legal Defense Fund	Willamette Provincial Advisory Committee
Oregon Natural Resources Council	Siskiyou Project	Willits Environmental Center
Oregon Park Associates	Siskiyou Regional Education Project	World Wildlife Fund
Oregon Shares Conservation Coalition	Smith River Advisory Council	
Oregon Sheep Growers Association	Smith River Alliance	
	SOCATS	
	Society for Range Management	
	Society of American Foresters	



*Clarification of Language in the Record of Decision for the Northwest Forest Plan  
Draft Supplemental Environmental Impact Statement*

Xerces Society

***Libraries, Schools, and Universities***

Central Washington University  
Colorado State University Libraries  
Evergreen State College  
Env Resource Center  
Humboldt State University,  
Department of Biological  
Sciences  
Forestry Department  
Klamath County Library  
Klamath Union High School  
Land-Air-Water Law Center  
Lane Community College Library

Mazama High School  
Oregon State University  
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***Media***

Ashland Daily Tidings  
Environmental Media Services  
The Associated Press

The Chronicle  
The Columbian  
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The Glide Weekly  
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News Review

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